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SJC-11774

COMMONWEALTH vs. KIRK P. CAMBLIN.

Middlesex. September 7, 2017. - December 8, 2017.

Present: Gants, C.J., Lenk, Gaziano, Budd, Cypher, & Kafker, JJ.

Motor Vehicle, Operating under the influence. Evidence, Breathalyzer test, Scientific test.

Complaint received and sworn to in the Ayer Division of the District Court Department on April 28, 2008.

Following review by this court, 471 Mass. 639 (2015), a motion to exclude evidence as scientifically unreliable was heard by Mark A. Sullivan, J.

Andrew W. Piltser Cowan for the defendant.

Casey E. Silvia, Assistant District Attorney (Cyrus Y.

Chung & Laura S. Miller, Assistant District Attorneys, also present) for the Commonwealth.

GAZIANO, J. In <u>Commonwealth</u> v. <u>Camblin</u>, 471 Mass. 639, 640, 651 (2015) (<u>Camblin I</u>), we remanded this case to the District Court to conduct a hearing on the scientific reliability of a particular model of breathalyzer, the Alcotest

7110 MK III-C (Alcotest), while retaining jurisdiction of the case. After conducting a Daubert-Lanigan hearing, a District Court judge found that the Alcotest was capable of producing scientifically reliable breath test results, and denied the defendant's motion to exclude this evidence at his trial for operating a motor vehicle while under the influence of alcohol. See Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579 (1993) (Daubert); Commonwealth v. Lanigan, 419 Mass. 15 (1994). judge returned his findings to this court, and both sides filed supplemental briefing, prior to renewed oral argument before us. The defendant now contends that the judge abused his discretion in finding that the Alcotest satisfies the Daubert-Lanigan standard for the admissibility of scientific evidence. We conclude that there was no abuse of discretion and affirm the denial of the defendant's motion to exclude the Alcotest results.

1. <u>Background</u>. a. <u>Prior proceedings</u>. In 2008, a

District Court complaint issued charging the defendant with

operating a motor vehicle while under the influence of liquor

(OUI), in violation of G. L. c. 90, § 24 (1) (<u>a</u>) (1). Before

trial, the defendant moved to exclude admission of breath test

evidence generated by the Alcotest; he argued that errors in the

device's computer source code, and other deficiencies, rendered

its results unreliable. A District Court judge denied the defendant's motion without conducting a <u>Daubert-Lanigan</u> hearing. The judge determined that because the Alcotest utilizes infrared spectroscopy technology, and the Legislature had prescribed a statutory and regulatory framework for the admissibility of "infrared breath-testing devices," see G. L. c. 90, \$\\$ 24 (1) (\overline{e}), 24K; 501 Code Mass. Regs. \$\\$ 2.00 (2006), the results of an infrared breathalyzer are admissible, pursuant to the statute, without the need for a hearing to determine the reliability of these tests.

The defendant then filed a petition pursuant to G. L. c. 211, § 3, in the county court, challenging the denial of his motion to exclude the Alcotest test results. A single justice denied the defendant's request for interlocutory relief, and the case proceeded to a jury trial. At trial, the defendant did not introduce evidence challenging the reliability of the Alcotest breathalyzer results. The jury found the defendant guilty of operating a motor vehicle while under the influence of alcohol and operating a motor vehicle with a blood alcohol level of or exceeding 0.08 per cent. See G. L. c. 90, § 24 (1) (a) (1).

The defendant appealed from his convictions, and we allowed his

<sup>&</sup>lt;sup>1</sup> The Chief Justice of the District Court specially assigned the case, and sixty-one other cases in which OUI defendants challenged the reliability of the Alcotest's source code, to a particular judge of that court.

application for direct appellate review. See <u>Camblin I</u>, 471 Mass. at 640-644.

In <u>Camblin I</u>, <u>supra</u>, the defendant primarily challenged the reliability of the Alcotest on the ground of asserted errors in the source code for its computer programs. In doing so, the defendant relied upon, among other things, affidavits from two expert witnesses and a report that he had submitted in support of his motion to exclude. One of the experts averred that he had scanned the Alcotest's source code, utilizing an "industry standard source code analysis tool," and had found more than 7,000 errors and 3,000 warning signals. <u>Id</u>. at 651. A different expert averred that the Alcotest is incapable of measuring accurately the amount of ethanol in a breath sample because the device does not exclude other "interfering substances" that might be present in the sample.<sup>2</sup> Id. at 652-

National Safety Council, Committee on Alcohol and Other Drugs,

<sup>&</sup>lt;sup>2</sup> According to the National Safety Council, an "interfering substance" is a "non-ethanol substance" able "to produce a significant response on any breath alcohol testing instrument." To qualify as an interfering substance, the substance must:

<sup>&</sup>quot;1. Be a volatile organic compound capable of appearing in the breath of a living, conscious human being.

<sup>&</sup>quot;2. Be present in sufficiently high concentration to be measured by the instrument after a 15 to 20 minute pretest observation period.

<sup>&</sup>quot;3. Be able to produce a response on the instrument that is indistinguishable from ethanol."

- 653. In addition, the report that the defendant submitted suggested that the calibration test used with the Alcotest does not ensure accurate results. Id. at 654. We remanded the matter to the District Court for a hearing to consider three issues: (1) the reliability of the Alcotest source code; (2) whether the Alcotest is capable of testing exclusively for ethanol; and (3) whether any source code errors affect the ability of the Alcotest to calculate a subject's blood alcohol content (BAC). Id. at 651-655.
- b. <u>Proceedings on remand</u>. On remand, the judge conducted a <u>Daubert-Lanigan</u> hearing, at which experts for the defendant and the Commonwealth testified about the reliability of the Alcotest. After the hearing, the judge issued a decision containing his comprehensive findings of fact, and remitted them to this court. With respect to the defendant's challenge to reliability of the source code, the judge concluded that "despite the minor flaws in the source code, the Alcotest provides a reliable measure of BAC." These minor source code flaws, he found, "pose a very remote chance of returning a falsely high BAC result, on the magnitude of a million to one. . . . The error rate here is well within an acceptable range necessary to make the Alcotest BAC results scientifically

reliable."

In this appeal, the defendant has chosen not to pursue his arguments concerning the source code as the primary basis for the asserted lack of reliability in the Alcotest. Rather, the current focus of the defendant's challenge to the reliability of the Alcotest is that it cannot distinguish ethanol from other "interfering" substances that might be present in a breath sample. The following facts were adduced at the <a href="Daubert-Lanigan">Daubert-Lanigan</a> hearing.

The Alcotest is an evidential breath-testing device manufactured by Draeger Safety Diagnostics, Inc. (Draeger).

Draeger describes the Alcotest as a "dual sensoric instrument" because it utilizes both infrared spectroscopy and electrochemical fuel cell sampling to analyze alcohol content in a breath sample. The subject blows air into the device through a tube connected to a chamber. An infrared light source at one end of the chamber generates energy in the 9.5 micron range, and a detector on the opposite end of the chamber receives the energy from the infrared source. Because infrared energy is absorbed by ethanol molecules, any such molecules that are present in a breath sample effectively "soak up" the infrared energy, and that portion of it does not reach the detector. The Alcotest is designed to measure a subject's breath alcohol

 $<sup>^{3}</sup>$  A micron is one millionth of a meter.

content based on the amount of infrared energy that reaches the detector as compared to the amount of energy detected when the chamber has been cleared and is filled simply with ambient air. In other words, the reduction in infrared energy (which has been absorbed by the ethanol molecules) from one end of the chamber to the other is equivalent to the concentration of alcohol present in the chamber.

In a dual-sensor Alcotest device, at the same time that the infrared energy is passing through the main chamber, a small portion of the breath sample enters a fuel cell sensor for a second measurement of breath alcohol. The fuel cell is an electrochemical device that essentially operates like a battery. It generates an electrical current from energy produced by a chemical reaction between any ethanol and the oxygen contained within the breath sample. The fuel cell is designed to measure the "footprint" of the chemical reaction and to compare that footprint to a baseline footprint created by a known ethanol To produce a valid BAC test result, the infrared energy reading and the fuel cell reading must be in agreement with one The Alcotest reports only the infrared reading to the another. operator; the fuel cell reading is intended to operate as a double check on the accuracy of the infrared measurement.

Both sides presented expert witness testimony on the question whether the Alcotest is capable of testing exclusively

for ethanol, while excluding interfering substances. defendant introduced testimony by Dr. Donald J. Barry, Ph.D., an astronomer with a substantial background in infrared spectrometry technology, as well as a background in chemistry. Barry testified that, where interfering substances are present, the Alcotest is incapable of testing exclusively for ethanol, and therefore its results can be tainted by the presence of interfering substances in the sample. Barry explained that the Alcotest's infrared spectroscope identifies a carbon-oxygen molecule that is emitted at a 9.5 micron wavelength. Several organic compounds other than ethanol, including acetone4 and methanol, also emit energy within the 9.5 micron range of the electromagnetic spectrum, and would similarly be detected by the Alcotest's spectroscope. Barry concluded that, as a result, the Alcotest could not reliably isolate and identify ethanol in a subject's breath to the exclusion of other interfering substances sharing a similar molecular structure.

Barry was not familiar with the particular fuel cell technology used in the Alcotest. He opined generally, however, that, for this type of application, fuel cells are a suspect measuring technology for several reasons, including diminishing performance over time. He testified that he was aware of no

<sup>&</sup>lt;sup>4</sup> Acetone is one of the most significant interfering substances, as it is naturally produced in the body, and can be found in people who are diabetic or who are dieting.

scientific support for Draeger's assertion that the Alcotest fuel cell sensor is independently capable of detecting alcohol as opposed to other compounds.

The Commonwealth introduced expert testimony by Hansueli Ryser, a Draeger vice-president with a thirty-four year background in engineering evidential breath test devices. Ryser had been involved in the engineering and development of the Alcotest. He testified that there were two primary means by which the device distinguished between ethanol and other substances that absorb infrared energy within a narrow range of the 9.5 micron wavelength. First, most interfering substances actually absorb slightly different wavelengths of infrared energy, or at slightly different intensities. The Alcotest's infrared measurement system identifies small differences in the absorption of energy and thereby is able to distinguish most nonethanol substances. In addition, while most breathalyzers use a frequency of 3.4 microns, the Alcotest was designed specifically to operate at a frequency of 9.5 microns in order to account for the "strong overlap of the [infrared] spectra" between acetone and ethanol at  $3.4^5$  microns. According to Ryser, at 9.5 microns one "would not see any interference that the acetone would add to the ethanol reading." The judge noted,

 $<sup>^{5}</sup>$  A frequency of 3.4 microns had been common in earlier breathalyzer machines.

"Apparently, it is almost impossible to distinguish ethanol and acetone at 3.4 microns, which is why Draeger abandoned its reliance on that range in earlier machines."

Ryser agreed that some substances, like methanol, do absorb energy at a similar rate and wavelength to ethanol.

Nonetheless, Ryser stated that differences in energy absorption rates would allow the Alcotest to distinguish between the two substances, due to the substances' differences in intensity.

Second, Ryser testified that the fuel cell sensor in an Alcotest machine functions as a fail-safe to distinguish between ethanol and other interfering substances. He noted that the fuel cell measures the flow of electrical current produced by the chemical reaction and registers a "kinetic reactivity" "footprint" for the breath sample. The Alcotest compares this footprint to the footprint created by the flow of electrical current generated by the known ethanol sample contained in a calibrated simulator solution. The Alcotest identifies interfering substances based on whether there are disparities between the two footprints. Finally, the Alcotest compares the infrared spectrometry and electrochemical fuel cell test If the two components produce substantially different measurements of a subject's BAC level, the Alcotest is designed to flag the differences as caused by an interfering substance, and thereafter to abort the test.

After the hearing, 6 the judge concluded that the Alcotest "reliably distinguishes ethanol from other substances found in human breath, and therefore returns reliable BAC results based solely on ethanol." He determined that there was no evidence "of any substance that (1) could be present in human breath; (2) could be absorbed at the 9.5 micron range at the same intensity level as ethanol; and (3) . . . would also produce the same kinetic reactivity footprint in the fuel cell as ethanol."

2. <u>Discussion</u>. a. <u>Standard of review</u>. The admission of scientific testimony is governed by what has come to be known as the <u>Daubert-Lanigan</u> standard. <u>Commonwealth</u> v. <u>Senior</u>, 433 Mass. 453, 458 (2001), citing <u>Daubert</u>, 509 U.S. at 585-595, and <u>Lanigan</u>, 419 Mass. at 25-26. See Mass. G. Evid. § 702 & comments (2017). The judge, acting as gatekeeper, is responsible for "mak[ing] a preliminary assessment whether the theory or methodology underlying the proposed testimony is sufficiently reliable to reach the trier of fact." <u>Commonwealth</u> v. <u>Shanley</u>, 455 Mass. 752, 761 (2010). We review a judge's decision to admit expert testimony as reliable under the abuse of discretion standard. Id. at 762, citing Canavan's Case, 432

<sup>&</sup>lt;sup>6</sup> The judge generally credited Dr. Donald J. Barry's expert testimony. He found that Dr. Barry's relative lack of knowledge about fuel cell technology, and unfamiliarity with the use of fuel cells to detect substances such as ethanol, went to the weight of his opinion, rather than to admissibility. The judge found that Hansueli Ryser's "experience with and knowledge of . . . dual sensor technology is ample and compelling."

Mass. 304, 312 (2000).

In Lanigan, 419 Mass. at 25-26, we adopted, in part, the United States Supreme Court's reasoning in Daubert, governing the admissibility of expert testimony based on a scientific theory. We did not, however, entirely abandon our prior test to determine the admissibility of scientific evidence, which focused on "whether the community of scientists involved generally accepts the theory or process." Lanigan, supra at 24, quoting Frye v. United States, 293 F. 1013 (D.C. Cir. 1923). Rather, we held that "general acceptance in the relevant scientific community will continue to be the significant, and often the only, issue," but "that a proponent of scientific opinion evidence may demonstrate the reliability or validity of the underlying scientific theory or process by some other means." See Lanigan, supra at 26.

Under the <u>Daubert-Lanigan</u> standard, a judge considering a motion to introduce expert testimony initially considers a nonexclusive list of five factors. See <u>Commonwealth</u> v. <u>Powell</u>, 450 Mass. 229, 238 (2007). Among these factors are "whether the scientific theory or process (1) has been generally accepted in the relevant scientific community; (2) has been, or can be, subjected to testing; (3) has been subjected to peer review and publication; (4) has an unacceptably high known or potential rate of error; and (5) is governed by recognized standards."

- Id. A judge has "broad discretion" to weigh these factors and to apply varying methods to assess the reliability of the proffered testimony, depending upon the circumstances of a particular case; in some instances, certain factors may be inapplicable. See Palandjian v. Foster, 446 Mass. 100, 111 (2006). "Differing types of methodology may require judges to apply differing evaluative criteria to determine whether scientific methodology is reliable." Canavan's Case, 432 Mass. at 314 n.5. Because the admissibility of expert testimony is a preliminary question of fact, the proponent's burden of proof to demonstrate the reliability of the expert opinion is by a preponderance of the evidence. See Commonwealth v. Rosenthal, 432 Mass. 124, 126-127 (2000), citing Care & Protection of Laura, 414 Mass. 788, 792 (1993). See also Mass. G. Evid. § 104(a) (2017) (in deciding preliminary questions of fact court is not bound by rules of evidence with exception of privilege).
- b. Reliability of the Alcotest. Turning to the judge's decision in this case, we consider whether he abused his discretion in finding that the Alcotest breathalyzer had been subject to sufficient independent testing to establish its reliability. In reaching his decision that the reliability of the Alcotest had been sufficiently established, the judge relied upon testimony by Ryser and testing conducted by two agencies: the National Highway Traffic Safety Administration (NHTSA), and

the Organisation Internationale de Métrologie Légale (OIML), an agency that regulates the use of alcohol breath-testing devices in Europe. The judge also noted that the Alcotest had been approved by the Australian International Laboratory of Spectroscopy and the Forensic Science Academy in Ottawa, Canada.

The judge's reliance on NHTSA testing did not constitute an abuse of discretion. "NHTSA certification is widely accepted by courts as evidence of a device's reliability." <u>United States</u> v.

<u>Ahlstrom</u>, 530 Fed. Appx. 232, 239 (4th Cir. 2013), citing

<u>California</u> v. <u>Trombetta</u>, 467 U.S. 479, 489 & n.9 (1984), and

<u>United States</u> v. <u>Brannon</u>, 146 F.3d 1194, 1196 (9th Cir. 1998).

See <u>People</u> v. <u>Vangelder</u>, 58 Cal. 4th 1, 33-34 (2013), cert.

denied, 134 S. Ct. 2839 (2014) (noting that devices which meet

NHTSA evidential breath-testing specifications produce

sufficiently reliable results within California's regulatory scheme).

Indeed, under G. L. c. 90, § 24K, the Secretary of Public Safety is required to promulgate regulations regarding "satisfactory methods, techniques and criteria" for the use of infrared breath-testing devices. In accordance with this statutory mandate, the Executive Office of Public Safety promulgated 501 Code Mass. Regs. §§ 2.00; this regulation requires that approved breathalyzers appear on the NHTSA's published conforming products list for evidential breath-testing

equipment. See 501 Code Mass. Regs. § 2.38 (2006).<sup>7</sup> The Alcotest appears on the NHTSA's published list as having met specific performance criteria. See 58 Fed. Reg. 48,705, 48,708 (1993) (NHTSA certification of Alcotest breathalyzer as conforming product). As part of its certification process, NHTSA tested whether, and to what extent, the Alcotest's infrared and fuel cell sensors were able to detect interfering substances. Thus, we discern no abuse of discretion in the judge's decision to rely on the agency statutorily required to certify breathalyzers in the Commonwealth.

In reaching his determination that "the Alcotest [infrared] and [electrochemical] features were tested independently for their ability to detect non-ethanol substances and both components met the NHTSA specifications," the judge relied on testimony by Ryser, which he credited explicitly, concerning the two-test comparison standard that the Alcotest employs. The judge noted also that each of the Alcotest's two sensors have been found compliant with the NHTSA specifications when operated individually. The judge noted that this independent, dual testing capability further "assures the device's ethanol specificity testing capability." If the results from either of the tests differ by more than a specified threshold, the test is rejected and testing ceases. At the time that the evidentiary

 $<sup>^{7}</sup>$  As it then existed.

hearing was held on remand, no other breathalyzer used a dualsensor system.

Likewise, the judge's reliance on the OIML test specifications and certifications was within his discretion. The OIML's certification requirements generally are viewed as being much more stringent than those applicable in the United States. Ryser explained that, because of the wavelength at which it operates, and the precision of its sensor, the Alcotest was even able to meet the certification requirements of the OIML "draft three" set of specifications. The draft three certifications were so stringent that the testing agency itself decided to remove some of those requirements from the "draft four" specification level, the most recent set of certification standards. In large part, the reduced stringency involved the use of a smaller number of interfering substances that a breathalyzer must be able to handle, rather than the vastly expanded list of substances in the draft three version. Alcotest also has been examined and certified on this less stringent draft four standard.

In sum, the judge was warranted in crediting Ryser's testimony that the NHTSA and the OIML certifications further demonstrated that the Alcotest was capable of testing exclusively for ethanol.

The defendant contends that the specification testing

conducted by the NHTSA and the OIML was deficient because neither agency utilized mixed samples in evaluating the Alcotest's ability to distinguish between ethanol and interfering substances. According to the defendant's expert witness, adequate testing requires challenging the device with a wide variety of "physiologically important" substances, as well as studying how the properties of the fuel cell change over We discern no error. The judge was well within his discretion in relying upon the NHTSA and OIML reports, based on their standard and widely accepted protocols regarding mixed sample testing. While the judge generally credited Barry's testimony, there was no abuse of discretion in the judge's decision to reject Barry's specific criticisms of the testing methodology. See <u>Canavan's Case</u>, 432 Mass. at 312 (judge is qualified to determine questions of credibility concerning proposed scientific expert testimony).

We turn to whether the technology underlying the Alcotest has been subjected to peer review and publication, another of the factors in the <u>Daubert-Lanigan</u> analysis. The peer-review prong of the <u>Daubert-Lanigan</u> standard serves a function similar to the general acceptance test; in essence, it requires a judge to determine whether the scientific theory underlying the disputed evidence has been accepted by the relevant scientific community. See <u>Commonwealth</u> v. <u>Senior</u>, 433 Mass. 453, 460-461

(2001). At the hearing in this case, the Commonwealth submitted a single peer-reviewed article that surveyed the history of breath-testing devices; the article mentioned that the Alcotest's use of an infrared detector operating at 9.5 microns and an electrochemical fuel cell "is a highly desirable feature for medicolegal purposes." The judge found that support for the peer-review factor of the <u>Daubert-Lanigan</u> analysis "is admittedly thin."

On appeal, the Commonwealth submitted to this court a number of additional peer-reviewed articles addressing the reliability of the Alcotest. We have considered scientific studies that arise following the denial of initial <a href="Daubert-Lanigan">Daubert-Lanigan</a> hearings where necessary to ensure an accurate decision concerning the reliability of scientific evidence. See

<sup>&</sup>lt;sup>8</sup> See Jones, Measuring Alcohol in Blood and Breath for Forensic Purposes -- A Historical Review, 8 Forensic Sci. Rev. 13, 31, 36 (June 1996).

<sup>9</sup> See Hodgson & Taylor, Evaluation of the Dräger Alcotest 7110 MKIII Dual C Evidential Breath Alcohol Analyzer, 34 Can. Soc. Forensic Sci. J. 95, 101 (2001) (Alcotest able to distinguish other potentially interfering substances, including acetone and methanol, from ethanol); Laakso, Pennanen, Himberg, Kuitunen, & Himberg, Effect of Eight Solvents on Ethanol Analysis by Dräger 7110 Evidential Breath Analyzer, 49 J. Forensic Sci., no. 5 (Sept. 2004) (Alcotest was able to detect most of potential interfering common substances, such as acetone, in concentration levels which did not significantly affect ethanol analysis, but significant concentration of chemical propanol, which can only be obtained by drinking high amounts of denatured alcohol, interfered with ethanol analysis).

Commonwealth v. Pytou Heang, 458 Mass. 827, 837-840 (2011) (citing subsequent report on ballistics evidence to further support judge's decision); Commonwealth v. Gambora, 457 Mass. 715, 724-727 (2010) (considering newly released report in appeal challenging fingerprint evidence); Commonwealth v. Fowler, 425 Mass. 819, 826-828 (1997) (relying on recently released report to resolve judge's concerns about deoxyribonucleic acid analysis). We also have considered scientific studies that were not before a lower court judge to further our understanding of the social science underlying a legal ruling. See, e.g., Commonwealth v. Johnson, 473 Mass. 594, 600 (2016); Commonwealth v. Crayton, 470 Mass. 228, 239 n.15 (2014); Doe, Sex Offender Registry Bd. No. 151564 v. Sex Offender Registry Bd., 456 Mass. 612, 622 (2010); Commonwealth v. Harris, 443 Mass. 714, 737 (2005). We see no reason to ignore the peer-reviewed articles submitted by the Commonwealth, which indicate that the Alcotest is capable of distinguishing between ethanol and common interfering substances.

In addition to considering whether the Alcotest had been subject to adequate testing and peer review, the judge also found "abundant evidence that the Alcotest and its underlying technology" had satisfied the other nonexclusive factors in the <a href="Daubert-Lanigan">Daubert-Lanigan</a> analysis: it has been generally accepted in the scientific community, it does not have an unacceptably high

known or potential rate of error, and it is governed by recognized standards. There was no abuse of discretion in the judge's determination that these factors had been met.

Finally, we briefly address an issue raised by the defendant regarding general acceptance in the scientific community. The defendant contends that the Alcotest could not have been generally accepted in the scientific community at the time of his trial; he points out that the device uses proprietary technology, including its computer source code, and that Draeger exclusively sells its breathalyzers to law enforcement agencies. He further argues that the approval of

Draeger offers an optional sensor that measures a subject's breath temperature as a means to assist in evaluating breathalyzer test results. Massachusetts law enforcement agencies declined to purchase this option. The defendant contends that the absence of a temperature sensor diminishes the accuracy of the Alcotest, and further demonstrates that it is not reliable. The defendant did not raise this issue in his original appeal from the denial of his motion to exclude the breath test results, and we did not ask the judge to consider it on remand. The judge made no factual finding regarding the significance of installing a breath temperature sensor.

Because the defendant did not raise the issue in his original appeal, we consider it to be waived. See <u>Commonwealth</u> v. <u>Pisa</u>, 384 Mass. 362, 365-367 (1981). We also are persuaded by the New Jersey Supreme Court's holding in <u>State</u> v. <u>Chun</u>, 194 N.J. 54, 105-106, cert. denied, 555 U.S. 825 (2008), that there is insufficient scientific study on the impact of a breath temperature measurement on the accuracy of the results. The New Jersey Supreme Court concluded in that case that the absence of a temperature sensor did not render the Alcotest unreliable. <u>Id</u>. at 107-108. The court commented that, to the extent that variation in breath temperature has an effect on breathalyzer test results, this went to the weight of the evidence and not to its admissibility. See id. at 108-109.

the Alcotest for use in other countries and in other jurisdictions in the United States does not indicate general acceptance, because these governmental actors do not constitute scientific communities for purposes of the <a href="Daubert-Lanigan">Daubert-Lanigan</a> standard. We do not agree. Governmental standard-setting agencies, such as the NHTSA, routinely conduct investigations, evaluate new and developing technologies, and set relevant scientific standards. See <a href="Powell">Powell</a>, 450 Mass. at 239-240, citing Commonwealth v. Patterson, 445 Mass. 626, 643 (2005).

3. <u>Conclusion</u>. The order denying the motion to exclude evidence as scientifically unreliable is affirmed. The judgment of conviction is also affirmed.

So ordered.